

1. A method using an aqueous effluent comprising the steps of:

collecting water contaminated with the 0.15% or more by weight of the salts of Na, Ca, Mg, Cl, SO₄, or CO₃ or combinations thereof;

processing the contaminated water to produce a first effluent of clean water and a second effluent of waste water;

analyzing the clean water to determine if its sodium content is too high for potable use; and

using the clean water for laundry applications if it has been determined that its sodium content is too high for potable use.

2. The method of using an aqueous effluent of Claim 1 wherein the step of processing the contaminated water includes the step of water softening.

3. The method of using an aqueous effluent of Claim 2 wherein the step of processing the contaminated water is by ion-exchange, precipitation, membrane softening or electrolysis.

4. A method using an aqueous effluent comprising the steps of:

collecting water contaminated with the salts of Na, Ca, Mg, Cl, SO₄, or CO₃;

processing the contaminated water to produce a first effluent of clean water and a second effluent of waste water;

analyzing the clean water to determine if its sodium content is too high for potable use; and

using the clean water within a cooling tower to dissipate heat if it has been determined that the clean water's sodium content is too high for potable use.

5. The method of using an aqueous effluent of Claim 4 wherein the step of processing the contaminated water includes the step of water softening.

6. The method of using an aqueous effluent of Claim 5 wherein the step of processing the contaminated water is by ion-exchange, precipitation, membrane softening or electrolysis.

7. A method for deicing and reducing the formation of ice on roads comprising the steps of:

collecting water contaminated with the 0.15% or more by weight of the salts of Na, Ca, Mg, Cl, SO₄, or CO₃ or combinations thereof;

5 processing the contaminated water to produce a first effluent of clean water and a second effluent of waste water;

processing the second effluent of waste water to produce a substantially solid salt mixture; and

10 applying the solid mixture of salts to a road for deicing or the reduction of the formation of road ice.

8. A method for deicing and reducing the formation of ice on roads of Claim 21 wherein the step of processing said second effluent of waste water to create a substantially solid salt mixture includes the step of evaporation.

9. A method for deicing and reducing the formation of ice on roads of Claim 21 wherein the solid salt mixture includes 90% or more of sodium salts.

10. A method for deicing and reducing the formation of ice on roads of Claim 22 wherein the solid salt mixture includes 90% or more of sodium salts.

5 11. A method for deicing and reducing the formation of ice on roads comprising the steps of:

collecting water contaminated with the 0.15% or more by weight of the salts of Na, Ca, Mg, Cl, SO₄, or CO₃ or combinations thereof;

10 processing the contaminated water to produce a first effluent of clean water and a second effluent of waste water;

processing the second effluent of waste water to produce a concentrated solution of salts; and

applying the concentrated solution of salts to a road for deicing or for reducing of the formation of ice on the road.

12. A method for deicing and reducing the formation of ice on roads of Claim
25 wherein the step of processing said second effluent of waste water to create a
concentrated solution of salts includes the step of evaporation.

13. A method for deicing and reducing the formation of ice on roads of Claim
5 25 wherein the concentrated solution of salts include increased levels of calcium and
magnesium salts.

14. A method for deicing and reducing the formation of ice on roads of Claim
26 wherein the concentrated solution of salts include increased levels of calcium and
magnesium salts.